GOULBURN, FORWARD PRICES AND PIES *

F. H. GRUEN,

Australian National University

In August, 1957, one of the major woolselling brokers, Goldsbrough Mort & Co. Ltd., decided to extend their woolselling activities to Goulburn, where wool auctions had previously been conducted by only one major selling broker—Farmers and Graziers' Co-operative Grain Insurance and Agency Co. Ltd. The New South Wales and Queensland Woolbuyers' Association had previously opposed the extension of woolselling from Sydney to Newcastle and later to Goulburn. At a general meeting in January, 1958, members of the Buyers' Association voted, in effect, to withdraw approval from Goulburn as a recognized buying centre as from July 1, 1958. A consequence of this vote and of the Association's rules was that members were prohibited from attending and buying at sales at Goulburn as from the date mentioned. After a series of abortive meetings between representatives of Buyers, Brokers and Growers the Attorney-General of New South Wales in September, 1958, referred the Buyers' Ban to the Industrial Commission of New South Wales, to ascertain whether this action or other aspects of wool marketing constituted an offence under the New South Wales Monopolies Act. The Industrial Commission of New South Wales delegated its powers and functions of inquiry etc. in this matter to Mr. Justice Cook, who held exhaustive hearings between October, 1958 and August, 1959.

In this paper I shall try to look at the wool marketing system in the light of the evidence presented to the Goulburn inquiry. This evidence is voluminous—apart from 287 exhibits not included in the official transcript, the cross-examination of witnesses and the addresses of various counsel run to 4,000 foolscap pages of double-spaced typing. I cannot claim to have done more than scan a large proportion of this evidence and—compared with the legal men involved—I am therefore at a disadvantage in discussing the matters raised.

But there are two reasons why I think an economist's re-examination of some of the evidence and of the Commissioner's conclusions seems desirable. The first of these is that while the discussion of the buyers' ban on Goulburn and certain other practices raises legal issues of the breach of Section 6 of the Monopolies Act, it also has economic implications which can perhaps be unravelled or assessed better by men with training in economics than in jurisprudence. While I have no *major* disagreement with Mr. Justice Cook's conclusions, some of the emphasis in his two reports reflects his legal training, but does not seem to me to get at some of the economically important issues. The second reason why an economist may want to look at the evidence is that the Goulburn hearings were the first official inquiry into the operation of the Australian wool maketing system. They have brought to light valuable information not previously available on how the wool market really works.

In many respects the operation of the wool market should correspond to the economist's ideal. In this market there are many thousands of growers selling their wool through the intermediary of commission brokers

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to hundreds of wool users throughout the world—who buy in turn through the intermediary of a large number of commission buyers. No single grower, broker, wool manufacturer or buyer controls a large enough proportion of the market to manipulate prices to his own advantage. Since the days of Adam Smith economists have bestowed their blessing on that complex interplay of economic forces which results from the action of many men competing and pursuing their own selfish ends—and in the process achieving the maximum welfare for society.

However, Adam Smith was also wise enough to recognize that the mere existence of numerous buyers and sellers is not a sufficient guarantee that the public interest shall be paramount. Thus he maintained in the *Wealth of Nations* that "People of the same trade seldom meet together, even for merriment and diversion, but the conversation ends in a conspiracy against the public . . ." Although I would not wish to defend the literal truth of this assertion, it does seem strange that associations of buyers and brokers have the sole power to determine the necessary regulations under which wool shall be sold at auction in Australia. One would have thought that there was some public interest involved in the manner in which this very important commodity is marketed. What is even stranger is that these associations have attempted to keep these regulations secret—not only from the ordinary man in the street or from meddlesome Governments, but also from those woolgrowers whose property they are commissioned to sell or buy respectively. Thus some three years ago the Graziers' Association of New South Wales was refused access to the regulations under which wool was sold in New South Wales and Queensland.

It may be argued that the interests of growers are sufficiently protected by the fact that the Brokers' Association is one of the parties responsible for the drafting of the regulations. The woolselling brokers, of course, act as commission agents for their grower clients. Unfortunately the evidence does not substantiate this argument. Woolselling brokers have not been particularly diligent in trying to control combinations among buyers. Correspondence from the Brokers' Association to the Buyers' Association does not go further than ask for more discreet behaviour by buyers when notifying claims and conducting pie transactions in the sale room. Furthermore, as will be shown later, two sections of the woolselling regulations have facilitated combinations among buyers.

How Many Woolselling Centres?

The immediate cause of the Goulburn inquiry was the organized buyers' boycott of the wool sales in the City of Goulburn. A large proportion of the evidence and most of the findings in Mr. Justice Cook's first report deal with this issue. By and large, it is the other two aspects of wool marketing dealt with—namely, the transactions known as forward selling and buyers' combinations known as "pies"—that we will be mostly concerned with here. However, some comments on the problem of the desirable number of woolselling centres may not be out of place.

Briefly, the position seems to be that because of the higher price of land and time lost through traffic congestion, the brokers' costs of handling, storing and displaying wool in Sydney are somewhat higher than in Goulburn. On the other hand, buyers' costs are greater in Goulburn than in

Sydney. Apart from the cost of travel and accommodation for the buyers and their employees, the volume bought per man in the smaller centres would be less than in Sydney and Brisbane.

In a really free wool marketing system these factors would affect prices—in the case of brokers, the lower handling charges would be passed on to their clients; on the other hand, prices realized in smaller centres would be sufficiently lower to compensate buyers for the increased costs involved in operating there. Unfortunately, the real world does not always behave according to the "norms" of economists. Thus brokers average their costs and do not lower handling charges when their costs have been reduced (and vice versa), and even if buyers make allowances for extra costs when buying wool at Goulburn, such allowances are not discernible from a comparison of prices realized in Goulburn and Sydney. This may or may not be due to the volatile nature of wool prices which would tend to obscure any such allowances.

However, whether the real world behaves as economics textbooks sometimes suggest it does, there is little doubt that, from the point of view of the graziers, and from that of the economy as a whole, the best situation is one where the costs of marketing the clip are minimized.[1] Whether Goulburn—or any other decentralized woolselling centre—is a good thing from the overall point of view depends then on whether the increase in buyers' costs are less than the reduction in brokers' costs. While the evidence in the transcript is not specifically designed to answer this question, it does appear that the reduction in brokers' costs exceeds the increase in buyers' costs. Hence decentralization of woolselling in Goulburn would seem to be desirable from an economic point of view.[2] It may be that with the growth of the wool clip, the obsolescence of existing wool stores in Sydney and the increasing congestion in city and suburbs, the opening of selling centres in other country towns will also become desirable.

But our wool marketing system is at present not organized in a way which would favour the choice of the best locations for wool auctions. Unless free competition and flexible charges operate, a rational choice will only become possible if all parties get together to examine the likely costs and benefits of conducting auctions in a number of different localities.

Forward Sales

Buyers undertake a variety of purchasing transactions. The first, and quantitatively the most important, is the purchase on commission for processors—either overseas or in Australia. The second is the purchase for

[1] It is conceivable that net income may be maximized at higher than minimum cost of marketing. However, this possibility seems of little practical importance in the present context.

[2] There are, of course, other considerations which are relevant to the number of woolselling centres, including the "educational advantage" to local graziers of being able to ascertain prices obtained by neighbours who have adopted different breeding or culling policies, etc. In addition the Commissioner considered the likely effects on the capital value of the assets of the existing broker in Goulburn, but when one considers the more general issue of decentralization of wool auctions, this particular consideration does not arise. It would seem to me that the most important criterion of the desirable number and location of selling centres is its effect on the overall costs of marketing.

interests who are merchants—including buyers acting as merchants themselves. The third group is the purchase of badly classed wool by re-handlers who hope to make a profit from re-classing and re-offering for sale.

The type of transaction we are concerned with here is the second. According to evidence at the inquiry the purchase of wool by buyers operating on their own account has increased since World War II. This has been attributed to increased competition among buyers in the post-war period, which has led some buyers to offer to sell wool forward at fixed prices in order to get extra business. Other factors which were regarded as contributing to this trend are the price stability processors experienced during World War II and the stability of synthetic fibre prices which enable them to be offered to mills at definite prices months ahead, forcing spinners of yarns using competing natural fibres to match these offers.

Whatever the causes, the wool trade in English and Continental centres is now provided with weekly circulars by some of the major buyers offering them different types of wool for future delivery at fixed prices. It was also suggested at the inquiry that most of the quoted forward prices are either at or below current prices. In periods of rising current or spot prices, forward price quotations and transactions become much less frequent.

The reason why most forward prices are at or below current prices can be summed up briefly for our purposes here. The forward price premium cannot exceed the small amount required to pay for the cost of wool storage, insurance and interest on the money tied up—otherwise it would pay consumers to buy wool now and store it until required. Once forward prices rise beyond that fairly narrow range above current prices arbitrage becomes profitable. There is no similar theoretical limit to the discount of forward prices on current prices. However, if forward prices were *substantially* below current prices arbitrage operations by would-be future consumers would again become profitable. The reason why a relatively small discount of forward prices may not produce the necessary arbitrage is the uncertainty about further falls in forward prices, but probably more importantly that consumers place some value on holding stocks of a certain size—it may, for instance, enable them to give definite delivery dates which could be essential for certain types of contracts. It has been observed in the study of forward price markets that, on the average, over a lengthy period, a discount exists more often than a premium.[3]

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[3] It has been suggested in the literature that the reason why futures prices—of which forward prices are one particular sub-group—are normally at a discount is that the latter represents a risk premium necessary to attract speculators who act as risk-takers. cf. J. M. Keynes, *Treatise on Money,* Vol. II, pp. 142-4 (Macmillan & Co., London, 1933) and J. R. Hicks, *Value and Capital,* pp. 137-9 (Clarendon Press, Oxford, 1939).

On the other hand it has been argued that "the Keynesian theory of the 'normal backwardation' is not more than one of many possible constellations in the futures market and there is no reason to assume that it is the most probable one". G. Blau, "Some Aspects of the Theory of Futures Trading", *Review of Economic Studies,* Vol. XII, p. 23 (1944-45).

While the existence of this normal discount can be demonstrated statistically the reasons for it are evidently subject to some disagreement. The reasons advanced in the text would be contested by Blau, who maintains that the convenience yield is necessarily small. However, the writer feels that in the case of a variable product such as wool and one which has to be ordered well in advance of planned consumption because of time-consuming transportation, the convenience yield may be of considerable importance.

On the other hand, the presence of this "normal discount"—and the possibilities of arbitrage which it provides—has been blamed for providing a depressing factor on the spot market. Mr. Justice Cook argued that forward prices did not, on the average, exert a depressing influence on prices on the following grounds: "The real reason why I am satisfied, upon such material as is before me, that these transactions have not been shown to be detrimental to the disposal of the wool clip is that the merchandiser must come into the market to purchase wool in order to fulfil his contract at the appropriate time, and even if the market has then weakened, the very entry of that merchandiser into the market ensures a purchase at market rates on the date in question."[4]

While forward transactions have probably not had a detrimental effect on the disposal of the wool clip, it seems to me that a more thorough discussion of the effects of these transactions is warranted.

While Mr. Justice Cook's argument is valid as far as it goes, it makes the implicit assumption that this one transaction has no effect on others. But the existence—and level—of forward offers by buyers becomes known very quickly in the trade. If a buyer offers to sell forward at a lower price, manufacturers *may* postpone purchases and run down stocks as a result of the lower forward prices offered, without actually using one of these lower forward offers. It would seem possible, therefore, for forward prices to exercise a depressing effect on spot prices for some period, if they affect "the opinion of the trade".

Secondly, it is not only by depressing the market price below the level which it would have reached otherwise, that forward prices can exercise a detrimental effect on wool marketing; harmful effects could also result from forward transactions having a *destabilizing* effect on spot prices. Keynes has suggested that when traders—i.e., both buyers and processors—no longer form their opinions about future price trends on the basis of objective factors governing prices but on the basis of "opinion in the trade", speculative transactions become dominant in the market. If traders concern themselves primarily with anticipating average opinion—or anticipating what average opinion expects average opinion to be—forward quotations are unlikely to exercise a stabilizing effect on the market.

However there are three arguments which suggest that the destabilizing effect of forward prices may not be of practical importance.

1. Keynes' discussion of this type of speculation was primarily concerned with the stock exchange. In the case of assets with a shorter "life" than shares, non-speculative forces necessarily loom larger than with stocks and shares. The objective or "non-speculative" value of a share is the discounted value of its earnings over its lifetime, whilst that of wool is the discounted value to the processor—which will depend on his sales during the next three, six or nine months. It is generally agreed that the "distant future" is more uncertain than the "immediate future". There would then seem to be less scope for disregarding, or being ignorant of, the objective market situation in the case of wool than in the case of shares and stocks.

[4] *Report by the Honourable Mr. Justice Cook under Section 8 of the Monopolies Act, 1923, concerning the Trade in Wool,* Government Printer, New South Wales, 1959, p. 4.

2. The existence of futures markets in London, New York, Antwerp and Roubaix means that processors will in any case have access to market views of the likely future price movement of wool (or wool tops) so that forward price offers are unlikely to be the major force determining the market's views of future price movements.

3. Another factor which suggests that forward sales do not have a destabilizing effect on the market is the relatively small volume of such trading. According to Exhibit 238, only 5.3 per cent of the wool purchased by 20 prominent New South Wales buyers (who accounted for 70 per cent of the total wool bought in New South Wales and Queensland) had been sold on forward contract in 1957-58.

These buyers bought a further 4 per cent on their own account, the rest of the wool being bought as agents for overseas or local principals.[5] Unfortunately, the figures I have just given from Exhibit 238 have not previously been quoted publicly. On the other hand three buyers' estimates made during the hearings—namely, that 20 to 40 per cent of their total purchases were made on their own account—*were* given wide publicity in the press at the time. I feel that these estimates may have convinced some of a much greater prevalence of forward transactions and private merchandizing by buyers than really exists.

These arguments, while by no means conclusive, suggest that it is unlikely that speculation through forward transactions has had any detrimental effect on wool marketing; indeed this form of trading is often sensible insurance for an interested party and thus should be of overall benefit to the wool market as a whole.

On the other hand, there are certain possible dangers associated with the growth of forward sales; one is the possibility of a destabilizing influence on spot prices and another an increase in the degree of concentration among buyers—for engaging in these transactions requires substantial capital and adds to the buyers' risk. As a result 94 per cent of all forward sales mentioned in Exhibit 238 were conducted by three of the four biggest wool buyers. It is these three buyers whose estimates have received the publicity referred to earlier. It has been suggested at the inquiry that these transactions have been a material factor in the growth of these large-scale buying houses.

Before discussing the degree of concentration among buyers any further it is desirable to deal with the economic effects of combinations among buyers—also known as pies.

Of Pies

Although composition, size and method of operation of pies vary, a pie is essentially an informal agreement between two or more buyers not to bid against each other. If a member of a pie ceases to bid before a lot has been sold, a fellow pie member can enter the bidding. When a lot has been procured by a pie member, any other member of the pie can "claim" on the buyer who has procured the lot.

[5] It is of course possible that some of these overseas principals operate as merchants and/or forward sellers. However this is not subject to local control in any case.

The pie member keeps a "split book" in which pie transfers are recorded. If there are two members in the pie and X does all the bidding for the pie Y is entitled to only half the wool which he claims from X. In a three-member pie Y would be entitled to only one-third of the wool he claims on. When a lot is transferred from X—the original buyer of the lot—to Y, X will instruct the selling broker to accept Y's directions regarding the shipment of the lot. The price Y pays for a transferred lot is identical with the price at which the lot was sold to X.[6]

Buyers admit that one of the main motives for forming pies is to eliminate competition. Thus a small Belgian wool buyer (Mr. Wattel) was asked: "How do you select the people to join up with?" Answer: "If you find somebody is continually on the same lines as you are, the same type of wool, you approach him. On the other hand you might approach him because you have been instructed to approach him from your principals overseas by virtue of the fact that you might both have a common client overseas who does not want two people who represent him out here to clash. Normally it is 'You are interested in the same sort of wool as I am. Are you agreeable to splitting?' Then you make the arrangement, how you are going to do the split, whether you are going to top him and he will claim on you, you fix the administrative arrangement of the split."[7]

There is little doubt that pies or splits are very widespread and that most buyers are members of a number of such arrangements. Mr. Wattel for instance was a member of 13 two-member and 13 three-member pies. Many pies revolve around a few of the larger buyers. According to the Counsel assisting the Commission in the Goulburn inquiry, members of one large pie would purchase 25 per cent of all wool sold in New South Wales and Queensland.

But evidence about the prevalence of pies now, as compared with pre-war, was conflicting. Some buyers maintained that they had become more common, others felt that they had always been widespread.[8] Twelve per cent of the total purchases of 20 major buyers who supplied information on the subject were obtained by claiming from fellow pie members. It would appear therefore that *at least* a quarter of all wool purchases in New South Wales and Queensland are subject to claims by other pie members and therefore presumably subject to restricted competition. However, this does not enable us to assess the effect of such pies on market prices.

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[6] The pie arrangement described above has been termed a "one-way pie" by Mr. Justice Cook. In other pies bidding may be made by any of the pie members. However, as this does not affect the economic consequences of these arrangements, this variation of pies has been ignored above.

[7] Transcript of Inquiry into the Trade in Wool, p. 545.

[8] It seems that before World War II pie transactions involved the physical splitting of lots. The practice of splitting has been condemned by various authorities for many years. Thus the minutes of the Empire Wool Conference held in June, 1931, record the passing of the following resolution: "That this Conference is of the opinion that the practice of lot splitting is not in the interests of the wool industry and should be discouraged". This resolution was moved and seconded by two South African brokers' representatives and supported by a Victorian broker's representative who stated, "We do all we can to prevent the practice". The motion was carried on the voices. (I am indebted to Dr. A. Barnard for drawing my attention to these minutes.)

To do this it would be necessary to set up a theortical model of an auction market and work out the effect of various combinations on the price obtained. Such a model should then be tested empirically and modified where necessary. The writer has started some working along these lines but such a discussion would make the present paper far too long and too technical. However, it is desirable to indicate the main lines of the argument.[9]

I have not found it possible to construct a theoretical model where pies *raise* the average price paid for wool above the level obtained in the absence of such combinations. However, in the case of many two or three-member combinations—where there are a total of say six buyers in the market—it can be shown that there will be no effect on prices. In some other cases—combinations will lower the average price realized. How much average prices will be depressed is difficult to estimate without an actual examination of the bidding in a representative number of cases. Judging from the quantitative examples used, the net effect on prices is unlikely to be very large.

Some evidence regarding the quantitative effect of pies has been published in Mr. Justice Cook's *Further Report* on the Goulburn wool inquiry. Mr. Justice Cook's second report was concerned mainly to demonstrate that pies can, at times, exercise a depressing influence on the price growers receive for their wool; hence the evidence adduced is not as suitable as one would wish, for estimating *how great* this depressing effect is likely to be. But it is possible on the basis of the information provided in the second report and of the supporting Exhibits—to make some estimates along these lines.

The second report mentions three analyses of the books of three different buyers (or groups of buyers) to ascertain the effects of pies.[10] The first of these relates to 19 lots of 84 bales bought by Lempriere and transferred to Sanderson under a pie arrangement. In the case of 5 lots (totalling 12 bales) the limits placed on the lots by the respective firms in the sale rooms were identical with the price paid, so that the pie had no effect on the price received. In the case of 9 lots (36 bales) there was a clear loss to the grower, because of the pie arrangement, of from $\frac{1}{4}$d. to $2\frac{3}{4}$d. per lb. In the case of the remaining 5 lots (36 bales) there was a possible loss of $\frac{1}{4}$d. per lb.—depending on which of the two buyers first reached a critical price. The bidding proceeds in minimum steps of $\frac{1}{4}$d., so that a buyer could obtain the lot at a price $\frac{1}{4}$d. below his limit, even though the other buyer had the same limit. (This is assumed to result in an average loss to the grower of one-eighth of 1d. for the purposes of the estimates given below.)

[9] Essentially what I attempted to do was to examine auction price formation given a number of simple bidding situations and using the bidding criterion that buyers always bid up to their commissioned limit. The effect of introducing different combinations between buyers can then be examined.

However, as is mentioned below, it can be shown that this simple bidding criterion is logically untenable. If a more complex bidding criterion is adopted, the average price realized with and without pies becomes indeterminate, but it is possible to show that the depressing effect of pies cannot exceed certain relatively narrow limits if buyers want to fill their orders within any given time period.

[10] *Further Report by the Honourable Mr. Justice Cook under Section* 8 *of the Monopolies Act,* 1923, *concerning the Trade in Wool.* Government Printer, Sydney, New South Wales, 1959, pp. 7-8.

If we average out these losses we find that the effect of the Sanderson-Lempriere pie arrangement for these 19 lots is to reduce the price the growers received by an estimated average of .638d. per lb.[11] Similarly on the following page of the second report, we find details of an arrangement between Dreyfuss-Prevost-McGregor relating to 13 lots sold in February, 1958, in Sydney and Brisbane. The average depressing effect was .422d. per lb. Lastly, an analysis of the purchase of 121 lots by Kreglinger is cited. In this case the average depressive effect was .311d. per lb.[12]

It may be argued—and in fact is suggested in the second report—that as buyers are sometimes prepared to go somewhat beyond their limits the average depressing effects may be greater. The main reason why buyers may go beyond their limits on a particular lot are two-fold: (*a*) a buyer may previously have bought some lots for this particular order below his limit so that he is in a position to exceed his limit on later lots—the ultimate purchaser being interested in obtaining a certain quantity of wool at a given average price; (*b*) some woolbuyers insist on a "customary discretion" from their clients, probably mainly to protect them against possible errors of judgment regarding the clean yields of the lots they buy. However this customary discretion (which is at least as high as 1d. per lb. in some cases) may be used to go above the buyer's limit if he should feel the market is likely to rise and that he might otherwise be unable to fulfil the order.

On the other hand it may be argued with equal plausibility that buyers will not always bid up to the full extent of their limits. It was suggested at the inquiry that when buyers know that their limits are somewhat above prices ruling at recent sales, they may be willing to wait for a short time rather than bid up to their limits at the beginning of each sale day. For instance, Mr. Lehane of Kreglingers argued that "a buyer with an order went into the market steadily and quietly and did not rush in and buy everything, because, he said, it was bad and furthermore the overseas customer did not like it."[13]

It is hard to weight these issues without a lot more information regarding the bidding procedures of buyers. Ideally what is needed is a comparison of buyers' limits with their bidding behaviour on a representative sample of lots. But it is possible, in the absence of such information, to generalize about the type of behaviour which would be rational on behalf of buyers. Buyers will presumably decide the level of their bids by balancing two conflicting considerations: (*a*) they want to get their lots for their clients at the minimum price and (*b*) they want to fill their orders within a reasonable time. (Overseas orders are normally put on board ship within ten days of being received). How close buyers' bids come to their possible maximum price will depend on the relative importance of these two con-

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[11] The average depressive effect for the 9 lot category was obtained from Exhibit 202.

[12] These figures are based on Mr. Justice Cook's *Further Report,* p. 8 and on Exhibits No. 251 and 224 respectively.

[13] *Further Report,* op. cit., p. 7.

siderations and on the degree of latitude they are granted by their clients.[14] To obtain an estimate of the probable price depressing effect of pies it would seem to me reasonable therefore to assume—as an approximation—that the factors likely to make buyers' bids exceed their limits are cancelled out by those which make them bid less than their limits. In other words, I have assumed above that buyers always bid up to their limits even though an hypothesis of such behaviour—consistently maintained—can be shown to be logically untenable.

So far we have only averaged the depressive effect of pies *over those operations where pies are active.* But it is not reasonable to suppose that pies affect the bidding on every lot—there are a considerable number of pies and if one pie member's limit is reached and he is outbid by a member of a second pie, another member of the first pie (with a higher limit) can take over the bidding. As was mentioned earlier, at least a quarter of all wool purchases are subject to restricted competitions; but unfortunately we cannot provide an upper estimate. However, if one half of all wool purchases are affected by pies the "average depressive effect" over the whole clip would be between .16d. and .32d. per lb. on the basis of the three analyses quoted earlier. A simpler and more realistic way of putting it might perhaps be that pies reduce the price received by about 1d. per lb. for every 3rd to 6th bale sold.

It is not suggested that such small fractions of a penny are not worth discussing, when the addition of a penny to the average price of the Australian woolclip would put an extra £6-£7 million into growers' pockets, but it is suggested that the monetary importance of these arrangements seems to have been greatly exaggerated. This is reinforced by the consideration that wool sales are being held in a large number of centres at roughly the same time. Let us assume that buyers' combinations in the whole of Australia had succeeded in depressing prices on the average by, say, one-fifth of a penny per lb. below the "free auction level" and that Australia supplies half the world's wool. The elimination of pies in Australia would not then lead to a rise in local prices by $\frac{1}{5}$d.—as such a price rise would lead to a diversion of orders from Bradford, Japan, etc. to other centres such as South Africa and South America until the "average effect" on prices in Australia and elsewhere is considerably lower—say around 1/10th d. per lb.

[14] This suggests that the argument advanced by buyers that pies exercise a stabilizing effect on prices is probably fallacious or at least exaggerated. For even if no pies existed the buyers with the highest limits would not complete their purchases during the first hour of a sale and allow prices to drift after that. Whilst such price trends may occur occasionally, they could certainly not become a regular feature of the market without some corrective action on the part of those buyers who happen to have the highest limits on those days.

In other words pies acomplish two things for buyers: (*a*) they make wool slightly cheaper and (*b*) they make life—or rather buying—easier by making it less necessary for each man to outguess his competitors.

For an examination of the actual trend in average prices during an auction sale of sheep, see David C. Duncan, "Statistics of an Auction Sale", *Applied Statistics,* Vol. 7 (March, 1958), p. 45.

Mr. G. O. Gutman has suggested to me that an auction market might be regarded as an attempt on the part of the sellers to share in the Marshallian consumer's surplus. In as far as pies are effective in reducing the average prices paid, this is pobably largely the result of "restoring" the full consumer's surplus to the consumer!

It seems to me unlikely therefore that pies have had any major effect on the competitive determination of prices at Australian wool auctions. In spite of this general conclusion there is no doubt that pies are a bad thing from Australia's point of view and should be curtailed if possible. Mr. Justice Cook recommended that pies be eliminated by drastic fines for companies or persons who induce or attempt to induce others to abstain from bidding at an auction sale of wool. Buyers would still be allowed to purchase wool through other buyers as brokers, but certain safeguards are suggested to prevent the deterioration of such an arrangement into a "pie". It is not possible, as yet, to ascertain how effective such legislation would be; while it may be difficult to eliminate informal agreements among buyers altogether, the suggested legislation will certainly impede the formation and operation of informal non-bidding arrangements and thus curtail their effects. Furthermore, the operation of pies can be made more difficult by appropriate alteration of two sections of the woolselling regulations; under Wool Selling Regulation 51 the buyer has the right—within a limited time—to notify the broker that he requires a particular lot invoiced to another buyer. This right has facilitated lot transfers between pie members. Secondly, under Regulation 45 a buyer who has bought a lot in error can have this lot resubmitted to auction. This has been used to correct "inadvertent" competition between pie members.

It seems desirable to alter both these regulations so as to make it more difficult for buyers to come to informal non-bidding agreements. Some forms of transfer of lots under Regulation 51 are innocuous and should not be discouraged—namely, where buyer A gets buyer B to buy and value wool for him because he, namely, buyer A, cannot be in the auction centre at the time. But Regulation 51 needs re-drafting to prevent the wholesale transfer of lots which has been common until now.

Conclusion

From this rather lengthy discussion of the Goulburn hearings two main conclusions can, it seems to me, be drawn. These are:—

1. The secrecy surrounding the woolselling regulations and the practices which this secrecy has helped to hide have done considerable harm to the cause of organized selling of wool by auction in Australia. On the other hand, I also feel that Mr. Justice Cook's second report—by concentrating on the legal aspects of pies—has led many people to believe that these arrangements have resulted in greater monetary damage than has in fact been sustained.

Under the circumstances only full disclosure of the rules and co-option at least of growers' representatives to the committees responsible for these rules seem necessary to restore public confidence in the operation of the wool marketing system. For even though the use of the present auction system may be regarded as hallowed by time, there has been persistent criticism of wool auctions for many years. It may not need much more than the Goulburn revelations to swing the balance of opinion against the present methods of marketing.

2. Secondly, the existence of combinations among buyers has drawn attention to the fact that it is in our interest to foster competition among buyers and to discourage an undue concentration of buying strength among

a small number of firms or individuals, for the same financial results which pies produce can be obtained by the concentration of the purchase of the Australian wool clip among a small group of buyers.

At present the New South Wales and Queensland Woolbuyers' Association—which covers the sales in these two States—has approximately 160 members. At a normal Sydney sale somewhere between 80 and 100 buyers attend the auction. But in 1957-58 the 12 largest buyers account for 46 per cent of all purchases, and the 32 largest buyers were responsible for 81 per cent of all wool bought. There is, therefore, a considerable degree of concentration of buying strength, but up to now decidedly insufficient, in the absence of pies, to impair the competitive working of the auction system. However, this is something which could change as a result of the growth of forward sales or perhaps even as a result of the prohibition of pies. In these circumstances it seems to me desirable that some check be kept on this matter—either by Government or by growers and that statistics of the degree of concentration be compiled and published regularly.

Postscript, June, 1960

According to a joint statement issued by the Sydney Wool Selling Brokers' Association, the New South Wales and Queensland Woolbuyers' Association, the Graziers' Association of New South Wales and the Farmers and Settlers' Association, buyers and brokers have agreed that:

1. The right of a woolbuyer to have wool purchased by him invoiced to another buyer (other than a brokerage client) will be eliminated. Under the new woolselling regulations the Brokers' Association will maintain a register of brokerage buyers and clients to prevent the operation of pies.

2. A buyer who seeks registration as a brokerage buyer's client will have to make a statutory declaration supporting his application.

3. The Brokers' Association has the right to refuse or to cancel a registration.

These proposed changes to come into force on 10th July, 1960. In addition the mistake bid clause (i.e., Regulation 45) has been amended so as to halve the time available in which to invoke the clause.